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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/596,907

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Takashi Kumabe

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EXAMINER

KUMAR, RAKESH

ART UNIT

PAPER NUMBER

3651

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09/01/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,907	Applicant(s) KUMABE ET AL.	
	Examiner RAKESH KUMAR	Art Unit 3651	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 2,4 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,6 and 8-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 May 2009 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

The replacement drawings of Figures 6,10,14 and 16-19 were received on 05/29/2009. These drawings are acceptable.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,3,5,6 and 8-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Glory (JP 08293061 A) in view of Ogawa (JP 09099171A).

Referring to claims 1,18-20. Glory discloses a vending machine (Figure 1) comprising:

an article stocker (3) that stores a plurality of articles (4);

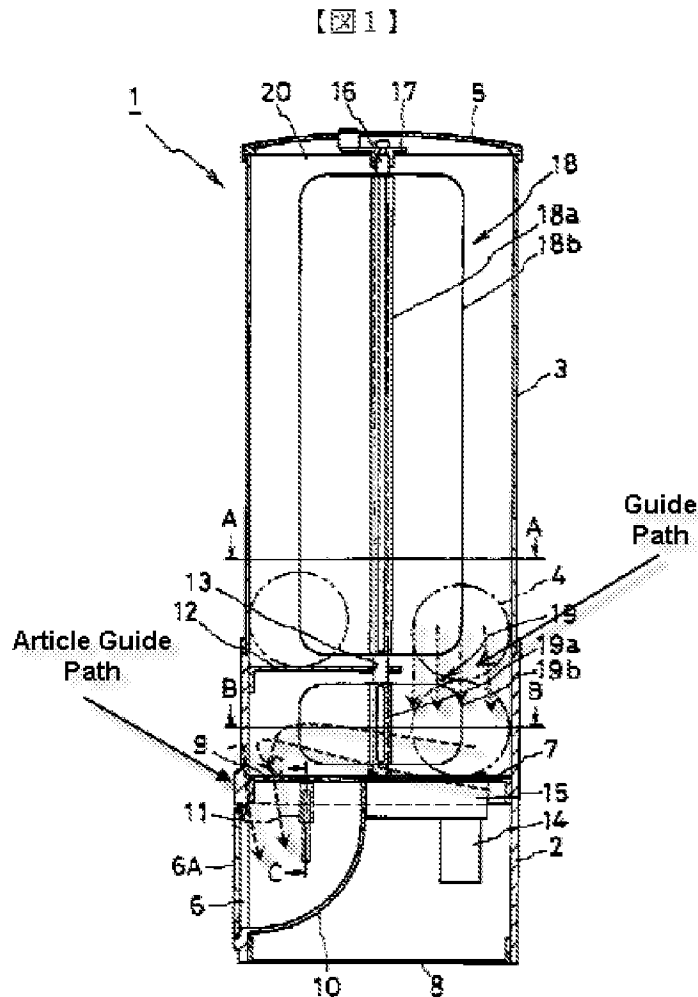
an article moving mechanism (18) that moves at least one of the plurality of articles (4) stored in the article stocker (3) into an article guide path (see article discharge opening in member 12; right side; Figure 1 or element 9; Figure 3);

drive force generation by a motor by which the machine is driven

the article stocker (3) including a plurality of article receiving paths (see top end of Figure 2; each column partitioned by 18b) in which the plurality of articles (4) are received and vertically stacked one upon another (Figure 1);

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the plurality of article (3) receiving paths being arranged to surround (see Figure 2) a vertically extending center line (18a) of the article stocker (3);



the article moving mechanism (18) including a rotational shaft (18a) of which an axis line coincides with the center line of the article stocker (3), the rotating shaft (18a) being driven by the drive force (motor; 14) to rotate the article stocker (3), a first moving mechanism (18a) that moves the articles (4) from the plurality of article receiving paths

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(top openings of separate columns) to a predetermined position (position right side of member 12; Figure 1) as the rotating shaft rotates (18a), and a second moving mechanism (19) that moves into the article guide path (position right side of member 12; Figure 1) the articles (4) that have been moved to the predetermined position (above opening in member 12) by the rotation of the rotating shaft (18a), and the article moving mechanism (18) being constructed so that the rotation of the rotating shaft (18a) causes the article (4) to move from one of the plurality of article receiving paths into the article guide path (as shown in Figure 1 article resting above member 7), the article receiving paths being sequentially selected;

the first moving mechanism (18b) of the article moving mechanism (18) being a free-fall type moving mechanism including: an upper partition wall (12) and a lower partition wall (7), both disposed below the article stocker (3), vertically spaced from each other (see Figure 1), and extending in a direction perpendicular to the rotating shaft (18a); and

an upper through-hole (opening in member 12) provided in the upper partition wall (12) to allow one of the articles (4) to fall therethrough from the selected one article receiving path onto the lower partition wall (7) while the article stocker (3) is rotating about the rotating shaft (18a);

the lower partition wall (7) being formed with a lower through-hole (9) that guides an article (4) to the article guide path (around top of member 7 through opening 9); and

the second moving mechanism (19b) being a rotary moving mechanism provided between the upper partition wall (12) and the lower partition wall (7), and adapted to

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rotate together with the rotating shaft (18a and 19a are connected) to put the article (4), which has fallen onto the lower partition wall (7), into the article guide path (around top of member 7 through opening 9), the second moving mechanism (19b) including a guide wall (19b) provided between the upper partition wall (12) and the lower partition wall (7) and adapted to guide the article (4), which has fallen onto the lower partition wall (7), into the article guide path (around top of member 7 through opening 9).

Glory does not specifically disclose a manual operation means that is manually driven and a drive force generation/transmission mechanism that generates a drive force.

Ogawa discloses a dispensing apparatus wherein a manual operation means (7) that is manually driven (rotatable handle 7; Figure 2); and

a drive force generation/transmission mechanism (37) that generates a drive force by utilizing a force applied from the manual operation means (7) and transmits the drive force to the article moving mechanism as an operation source (see Figure 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the teachings of Glory to include a manual drive force generation and transmission mechanism to driver the article moving mechanism as taught by Ogawa because the vending apparatus would more energy efficient.

Referring to claim 3,8,10,11,1416. See rejection above. Glory discloses a vending machine (Figure 1) wherein the article stocker (3) includes m (m is a positive

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integer of two or more) article receiving paths (opening for each column in stocker 3) in which the plurality of articles (4) are received and vertically stacked one upon another (Figure 1), wherein the m article receiving paths surround the vertically extending center line (18a), and separation walls (18b), which separate two adjoining paths among the article receiving paths, are arranged to extend radially from the center line (18a) at an angular interval of $360^\circ/m$ ($360/\text{number of columns}$).

Referring to claim 5,6,9,12,13,15,17. See rejection above. Glory discloses a vending machine (Figure 1) wherein a distance between the upper partition wall (12) and the lower partition wall (7) is determined so that the presence of the article (4) that has fallen onto the lower partition wall (7) prevents other articles situated above the fallen article from entering into the upper through-hole (opening through member 19; see diameter of article substantially the same as the distance between the upper and lower walls; Figure 1).

Allowable Subject Matter

The indicated allowability of claims 1 and 10 is withdrawn in view of the newly discovered reference(s) to Glory (JP 08293061 A) in view of Ogawa (JP 09099171A). Rejections based on the newly cited reference(s) follow. See rejection above.

Response to Arguments

Applicant's arguments, see Remarks, filed 05/29/2009, with respect to "Objection to the Drawings" and the "Rejection under 35 USC 112 second paragraph" have been fully considered and are persuasive. The Drawing objections and the Rejection under 35 USC 112 second paragraph as stated in the Office action dated 01/30/2009 have been withdrawn.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RAKESH KUMAR whose telephone number is (571) 272-8314. The examiner can normally be reached on M-F 8 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gene Crawford can be reached on (571) 272-6911. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gene Crawford/
Supervisory Patent Examiner, Art
Unit 3651

/RAKESH KUMAR/
Examiner, Art Unit 3651